Astrophysics Research And Analysis

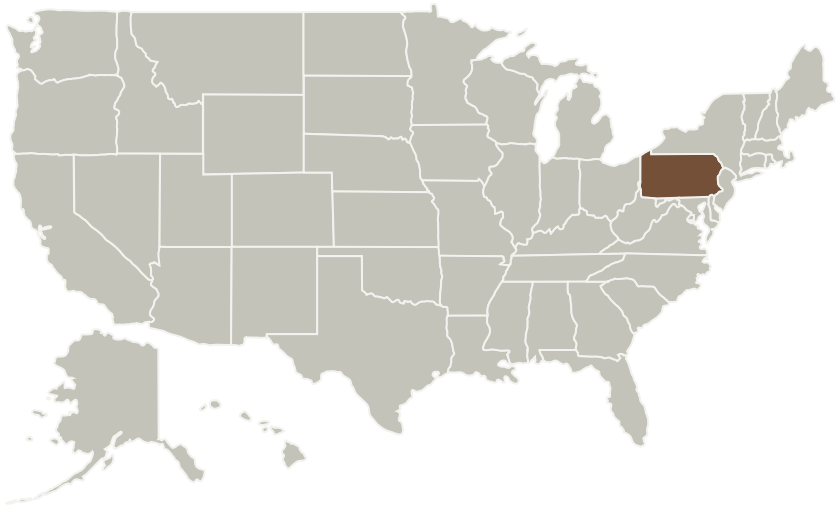
Fabrication of Sparse Readout Detectors for X-ray Astronomy

Completed Technology Project (2018 - 2021)

Project Introduction

We propose to continue our detector development program in X-ray astronomy. Under our current APRA grant we have fabricated a new read out integrated circuit that is one half of a hybrid CMOS detector. Here we propose to build and test these innovative detectors, which could potentially be flown on future X-ray missions with focused optics and/or large effective area. This proposal supports NASA's goals of technical advancement of technologies suitable for future missions and training of graduate students.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Pennsylvania State University-Main Campus(Penn State)	Supporting Organization	Academia	University Park, Pennsylvania

Primary U.S. Work Locations
Pennsylvania

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Organizational Responsibility

Responsible Mission Directorate:

Science Mission Directorate (SMD)

Responsible Program:

Astrophysics Research and Analysis

Project Management

Program Director:

Michael A Garcia

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Project Management *(cont.)*

Program Manager:

Dominic J Benford

Principal Investigator:

David Burrows

Co-Investigators:

Melissa T Gensimore
Abe Falcone

Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.1 Detectors and Focal Planes

Target Destination

Outside the Solar System